

**REMARKS**

Claims 1-3, 7-11, 13 and 14 are under examination. Claims 4-6 and 12 are withdrawn as being directed to non-elected species. Claim 1 is currently amended to correct a typographical error. Claim 15 is cancelled. Applicants appreciate the Examiner's withdrawal of the prior rejections under 35 U.S.C. § 103.

**Rejection Under 35 U.S.C. § 112**

Claims 1-3, 7-11, 13 and 14 are rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the enablement requirement. After reviewing the *Wands* factors, the Examiner concluded that the specification does not enable the claims because, "[t]he instant claims are drawn to [...] generating and screening compounds that fit a simulation model. However, synthesizing a compound is an unpredictable process. ... Given that it is still unpredictable to synthesize proteins that fit a computer model, one of skill in the art would have to perform undue experimentation in order generate such proteins. Without further guidance from the specification or method steps from the claims, the specification does not enable one of skill in the art to make or use the invention commensurate in scope with these claims." Applicants respectfully traverse the rejection.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. MPEP 2164.01 (citing *United States v. Teletronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988)). The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *Id.* (citing *In re Angstadt*, 537 F.2d 498, 504 (CCPA 1976)).

While the Examiner has characterized the invention as drawn to "generating and screening compounds that fit a situation model", Applicants respectfully note that the claims recite steps in addition to generating and screening compounds. That is, the claims set forth specific computational steps that include various selection steps such as steps to reduce the number of conformers that result from the computational analysis. In addition, the claims are directed to methods of generating proteins with a polymeric moiety attached at a favorable attachment site, e.g. not simply generating and screening a compound.

Moreover, Applicants respectfully disagree with how the *Wands* factors are applied to the present invention. Specifically, step d) ii) requires "disallowing conformers at each of said

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amino acids on the basis of a distance cutoff." This step will remove most or all of the theoretical protein computer models that are not able to be physically synthesized. For example, a computer model where a polymeric moiety is attached to an amino acid in the core of the protein will be disallowed. Indeed, by following the steps as outlined in the claims, protein having a polymeric moiety attached at a favorable attachment site was identified, generated and screened.

Accordingly, Applicants submit that upon an appropriate application of the *Wands* factors, the finding of a lack of enablement should be withdrawn. Applicants respectfully request the Examiner to withdraw the rejection under 35 U.S.C. §112.

### **CONCLUSION**

Applicants respectfully submit that the claims are now in condition for allowance and early notification to that effect is respectfully requested. If the Examiner feels there are further unresolved issues, the Examiner is respectfully requested to phone the undersigned at (415) 442-1216.

Respectfully submitted,

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